

Mr. Mike Bengtson
City of Bloomington Utilities
1969 South Henderson Street
Bloomington, Indiana 47401

Re: Registered Construction and Operation Status,
105-11729-00037

Dear Mr. Bengtson:

The application from City of Bloomington Utilities, received on December 29, 1999, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following equipment to be located at 7470 Shields Ridge Road, Bloomington, Indiana, is classified as registered:

- (a) one (1) No. 2 distillate fuel oil fired engine generator, identified as EG-1, for emergency duty only, operating at a maximum of 500 hours per year, with a maximum heat input rating of 10.8 million British thermal units (MMBtu) per hour, exhausting through one (1) vent, identified as V-1;
- (b) one (1) No. 2 distillate fuel oil fired engine generator, identified as EG-2, for emergency duty only, operating at a maximum of 500 hours per year, with a maximum heat input rating of 9.8 million British thermal units (MMBtu) per hour, exhausting through one (1) vent, identified as V-2; and
- (c) two (2) No. 2 distillate fuel oil storage tanks, identified as FT-1 and FT-2, each with a maximum storage capacity of 1000 gallons.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Management that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

TE/EVP

cc: File - Monroe County
Monroe County Health Department
Air Compliance -Joe Foyst
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michelle Boner

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name:	City of Bloomington Utilities
Address:	7470 Shields Ridge Road
City:	Bloomington, Indiana
Authorized individual:	Mike Bengtson
Phone #:	812-349-3650
Registration #:	105-11729-00037

I hereby certify that City of Bloomington Utilities is still in operation and is in compliance with the requirements of Registration **105-11729-00037**.

Name (typed):
Title:
Signature:
Date:

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

City of Bloomington Utilities
1969 South Henderson Street
Bloomington, Indiana 47401

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make
these representations on behalf of _____.
(Company Name)
4. I hereby certify that City of Bloomington Utilities, 1969 South Henderson Street, Bloomington, Indiana, 47401, has constructed the two (2) engine generators and the two (2) No. 2 distillate oil storage tanks in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on December 29, 1999, and March 16, 2000, and as permitted pursuant to **Registration No. CP-105-11729, Plant ID No. 105-00026** issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 20 _____.
My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: City of Bloomington Utilities
Source Location: 7470 Shields Ridge Road, Bloomington, Indiana
County: Monroe
SIC Code: 4941
Registration No.: 105-11729-00037
Permit Reviewer: Trish Earls/EVP

The Office of Air Management (OAM) has reviewed an application from City of Bloomington Utilities relating to the construction and operation of two (2) engine generators and two (2) No. 2 fuel oil storage tanks.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

The application includes information relating to the construction and operation of the following equipment:

- (a) one (1) No. 2 distillate fuel oil fired engine generator, identified as EG-1, for emergency duty only, operating at a maximum of 500 hours per year, with a maximum heat input rating of 10.8 million British thermal units (MMBtu) per hour, exhausting through one (1) vent, identified as V-1;
- (b) one (1) No. 2 distillate fuel oil fired engine generator, identified as EG-2, for emergency duty only, operating at a maximum of 500 hours per year, with a maximum heat input rating of 9.8 million British thermal units (MMBtu) per hour, exhausting through one (1) vent, identified as V-2; and
- (c) two (2) No. 2 distillate fuel oil storage tanks, identified as FT-1 and FT-2, each with a maximum storage capacity of 1000 gallons.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
V-1	EG-1	8.5	0.83	10,000	1,050
V-2	EG-2	7.7	0.67	7,523	964

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 29, 1999, with additional information received on March 16, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (1 page).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	0.52
PM-10	0.30
SO ₂	2.60
VOC	0.46
CO	4.38
NO _x	16.48

Note: PTE calculations based on 500 hours per year.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of NO_x is equal to or greater than 10 tons per year and less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Engine generators	0.52	0.30	2.60	0.46	4.38	16.48	0.0
Total Emissions	0.52	0.30	2.60	0.46	4.38	16.48	0.0

County Attainment Status

The source is located in Monroe County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Monroe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Monroe County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.52
PM10	0.30
SO ₂	2.60
VOC	0.46
CO	4.38
NO _x	16.48
Single HAP	N/A
Combination HAPs	N/A

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The two (2) 1,000 gallon fuel oil storage tanks, are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels" because each tank has a storage capacity less than 40 m³.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Monroe County and the potential to emit of all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The two (2) No. 2 distillate oil-fired engine generators are not subject to the requirements of this rule because potential SO₂ emissions from the generators are less than 25 tons per year or 10 pounds per hour.

There are no other applicable State rules for the emission units at this source.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

None of the listed air toxics will be emitted from this source.

Conclusion

The construction and operation of the two (2) engine generators and the two (2) No. 2 fuel oil storage tanks shall be subject to the conditions of the attached proposed **Registration No. 105-11729-00037**.

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>600 HP)

Page 1 of 1 TSD App A

Company Name: City of Bloomington Utilities
Address City IN Zip: 7470 Shields Ridge Road, Bloomington Indiana
Registration No.: 105-11729
Plt ID: 105-00037
Reviewer: Trish Earls
Date: March 16, 2000

A. Emissions calculated based on heat input capacity (MMBtu/hr)

Heat Input Capacity
MM Btu/hr

S= 0.5 = WEIGHT % SULFUR

20.6

Heat Input Capacity includes two (2) engine-generators (EG-1 and EG-2), rated at 10.8 and 9.8 MMBtu/hr, respectively.

Emission Factor in lb/MMBtu	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	0.1	0.0573	0.5 (1.01S)	3.2 **see below	0.1	0.85
Potential Emissions in tons/yr	9.02	5.17	45.57	288.73	8.12	76.69
Limited Potential Emissions in tons/yr*	0.52	0.30	2.60	16.48	0.46	4.38

* Limited Potential emissions based on limited operating hours of 500 hours per year.

**NOx emissions: uncontrolled = 3.2 lb/MMBtu, controlled with ignition timing retard = 1.9 lb/MMBtu

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Table 3.4-1 and Table 3.4-2

Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)

*No information was given regarding which method was used to determine the PM emission factor or whether condensable PM is included. The PM10 emission factor is filterable and condensable PM10 combined.